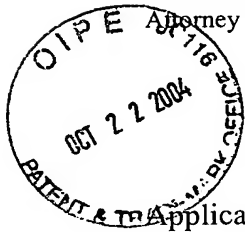


IFW

Application No. 10/694,621
Information Disclosure Statement dated 10/20/04
Attorney Docket No. 0702-032079



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/694,621
Applicants : Paul VAN RIEL et al.
Filed : October 27, 2003
Title : METHOD AND DEVICE FOR THE GENERATION AND
APPLICATION OF ANISOTROPIC ELASTIC PARAMETERS
Group Art Unit : 2857
Examiner : Not Yet Assigned
Confirmation No. : 2640
Customer No. : 28289

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to the requirements of 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants submit this Information Disclosure Statement together with a completed Form PTO/SB/08A, and a copy of each non-patent literature reference listed thereon. Since this application was filed after June 30, 2003, and according to the change in the 37 C.F.R. §1.98(a)(2)(i) requirement, no United States patent copies are enclosed.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 20, 2004.

Florence P. Trevethan
(Name of Person Mailing Document)

Florence P. Trevethan 10/20/2004
Signature Date

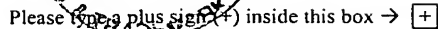
This Information Disclosure Statement identifies ~~the~~ prior art discussed by the Applicants in the present application. U.S. Patent No. 6,665,615 issued from Serial No. 09/817,807 identified on p. 3, line 8 of the present application. U.S. Patent No. 6,618,678 issued from Serial No. 09/579,695 identified on p. 4, line 4 of the present application.

Since this Information Disclosure Statement is being submitted before the mailing date of a first Office Action on the merits, it is timely under 37 C.F.R. §1.97(b)(3) and no fee is required. The Commissioner for Patents is hereby authorized to charge any additional fees which may be required to Deposit Account No. 23-0650. One (1) original and two (2) copies of this Information Disclosure Statement are enclosed.

Respectfully submitted,

WEBB ZIESENHEIM LOGSDON
ORKIN & HANSON, P.C.

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

(use as many sheets as necessary)

Application Number	10/694,621
Filing Date	October 27, 2003
First Named Inventor	Paul Van Riel
Group Art Unit	2857
Examiner Name	Not Yet Assigned
Attorney Docket Number	0702-032079

Sheet	1	of	3
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[illegible][illegible]Date
Considered

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/694,621
				Filing Date	October 27, 2003
				First Named Inventor	Paul Van Riel
				Group Art Unit	2857
				Examiner Name	Not Yet Assigned
Sheet	2	of	3	Attorney Docket Number	0702-032079

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, cite and/or country where published.	T ²
		JOHN P. CASTAGNA and MILO M. BACKUS; "Offset-Dependent Reflectivity – Theory and Practice of AVO Analysis"; Investigations in Geophysics No. 8; pgs. 1-36; Society of Exploration Geophysicists, AVO Analysis-Tutorial and Review.	
		PATRICK CONNOLLY; "Elastic impedence"; THE LEADING EDGE; April, 1999; pgs. 438, 440, 442, 444, 446, 448, 450, 452.	
		IRSHAD R. MUFTI and RICARDO A.R. FERNANDES; "A wave-equation splitting algorithm for seismic modeling with applications to anisotropic media", 1998 SEG Expanded Abstracts (4 pgs.).	
		ARILD BULAND and HENNING OMRE; "D-39 Bayesian Seismic Inversion and Estimation in a Spatial Setting", EAGE 65 th Conference & Exhibition-Stavanger, Norway, 2-5 June 2003 (pgs. 1-4).	
		ARILD BULAND and HENNING OMRE; "Bayesian linearized AVO Inversion"; GEOPHYSICS, Vol. 68, No. 1 (January-February 2003); Pgs. 185-198, 16 Figs., 3 Tables.	
		JAN L. FATTI, ET AL; "Detection of gas in sandstone reservoirs using AVO analysis: A 3-D seismic case history using the Geostack technique"; GEOPHYSICS, Vol. 59, No. 9 (September 1994): pgs. 1362-1376, 16 Figs., 1 Table.	
		BILL GOODWAY, ET AL.; "Improved AVO fluid detection and lithology discrimination using Lamé petrophysical parameters; $\lambda\rho$, $\mu\rho$, & λ/μ fluid stack", from P and S inversions"; Canadian Society of Exploration Geophysicists 1998 Annual Meeting Expanded Abstracts, AVO 2.7, pgs. 183-186.	
		KLAUS BOLDING RASMUSSEN, ET AL.; "Rock Properties Prediction Through AVO Seismic Inversion"; NPF Geophysical Biennial Geophysical Seminar Expanded Abstracts; pgs. 107-110.	
		H. RUTLEDAL, ET AL.; "Time-Lapse Elastic Inversion at the Oseberg Field"; EAGE 64 th Conference & Exhibition-Florence, Italy; May 27-30, 2002; pgs. 1-4.	
		G.C. SMITH and P.M. GIDLOW; "Weighted Stacking for Rock Property Estimation and Detection of Gas"; Geophysical Prospecting 35; 1987; pgs. 993-1014.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	10/694,621
				Filing Date	October 27, 2003
				First Named Inventor	Paul Van Riel
				Group Art Unit	2857
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	0702-032079
Sheet	3	of	3		

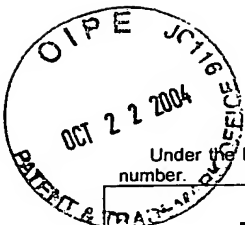
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, cite and/or country where published.	T ²
		T. TONELLOT, ET AL.; "3D quantitative AVA: Joint versus sequential stratigraphic inversion of angle-limited stacks"; SEG Int'l Exposition and 72 nd Annual Meeting, Salt Lake City, Utah; October 6-11, 2002; (4 pgs.).	
		DAVID N. WHITCOMBE, ET AL.; "Extended elastic impedance for fluid and lithology prediction"; SEG 2000 Expanded Abstracts; (4 pgs.).	
		A.T. WALDEN and R.E. WHITE; "On Errors of Fit and Accuracy in Matching Synthetic Seismograms and Seismic Traces", Geophysical Prospecting 32, 1984; pgs. 871-891.	
		ROY WHITE and ROB SIMM; "Tutorial: Good practice in well ties", © 2003 EAGE; First Break vol. 21, October 2003; pgs. 75-83.	
		CHARLES BERTRAND, ET AL.; "Seismic facies analysis applied to P and S impedances from pre-stack inversion"; SEG Int'l Exposition and 72 nd Annual Meeting Expanded Abstracts, Salt Lake City, Utah, October 6-11, 2002; (4 pgs.).	
		ALISTAIR R. BROWN; "Tuning Phenomena in Reservoirs" Interpretation of Three-Dimensional Seismic Data; AAPG Memoir 42, American Association of Petroleum Geologists, Fourth Edition, Chapter Six; pgs. 179-190.	
		STEVE LANCASTER and DAVID WHITCOMBE; "Fast-track 'coloured' inversion"; SEG 2000 Expanded Abstracts; (4 pgs.).	
		ANDREAS RÜGER; "Reflection Coefficients and Azimuthal AVO Analysis in Anisotropic Media"; SEG Number 10; Geophysical monograph series; Published 2002; United States of America; pgs. cover page, i-xi, 1-189	
		LEON THOMSEN; "Understanding Seismic Anisotropy in Exploration and Exploitation; 2002 Distinguished Instructor Short Course, Distinguished Instructor Series, No. 5; Sponsored by the Society of Exploration Geophysicists European Association of Geoscientists & Engineers; (165 pgs.).	

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/694,621	
	Filing Date	October 27, 2003	
	First Named Inventor	Paul Van Riel	
	Art Unit	28573	
	Examiner Name	Not Yet Assigned	
Total Number of Pages in This Submission	6	Attorney Docket Number	0702-032079

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Documents <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below) Form PTO/SB/08A; copies of each non-patent literature reference cited; and return receipt postcard.
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Patricia A. Olosky
Signature	<i>Patricia A. Olosky</i>
Date	October 20, 2004

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Signature	<i>Florence P. Trevethan</i>	Date	October 20, 2004

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